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Notice of Allowability

Application No.

10/629,484

Examiner

Tuan T. Lam

Applicant(s)

LUTKEMEYER, CHRISTIAN A.J.

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the terminal disclaimer filed 9/27/2005.
2. ☒ The allowed claim(s) is/are 32 and 35-38.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

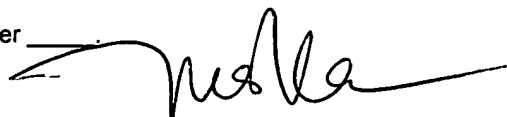
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other


Tuan T. Lam
Examiner

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1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The following changes have been made to the subject application:

SPECIFICATION:

Page 1, line 8, after "March 13, 2002," --now USP 6,636,091-- has been inserted;

Page 1, line 9, after "January 24, 2001," --now USP 6,501,311" has been inserted.

CLAIMS:

Claims 1-31. (cancelled)

32. (currently amended) A method of compensating for phase differences between a plurality of signals associated with a plurality of signal levels, comprising steps of :

(a) comparing a rising edge of a first signal associated with a first signal level with a rising edge of a second signal associated with a second signal level;

(b) generating a rising edge compensation signal indicative of a phase difference between the rising edge of the first signal and the rising edge of the second signal;

(c) comparing a falling edge of the first signal with a falling edge of the second signal;

(d) generating a falling edge compensation signal indicative of a phase difference between the falling edge of the first signal and the falling edge of the second signal;

(e) delaying the rising edge of the first signal in response to the rising edge compensation signal; and

(f) delaying the falling edge of the first signal in response to the falling edge compensation signal;

wherein delaying steps (e) comprises buffering the first signal with a buffer transistor and adjusting current flow through the buffer transistor, thereby controlling delay of the rising edge of the first signal through the buffer transistor.

33-34. (cancelled)

35. (currently amended) The method of claim 32 wherein delaying step (f) comprises adjusting current flow through the buffer transistor thereby controlling delay of the falling edge of the first signal through the buffer transistor.

36. (previously presented) The method of claim 35 wherein generating step (b) comprises generating a rising edge compensation signal indicative of whether the rising edge of the first signal leads the rising edge of the second signal.

37. (previously presented) The method of claim 36 wherein generating step (d) comprises generating a falling edge compensation signal indicative of whether the falling edge of the first signal leads the falling edge of the second signal.

38. (previously presented) The method of claim 37 further comprising a step (h) of:

(h) filtering the rising edge compensation signal and the falling edge compensation signal with low-pass filters.

39-40. (cancelled)

The changes have been made to update the information of continuation applications and to change the claim identifiers in claims 32 and 35 in order to place the application in a condition for allowance.

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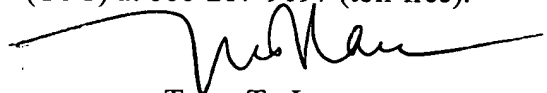
The following is an examiner's statement of reasons for allowance: the terminal disclaimer filed 9/27/2005 has been approved and entered. The prior art of record fails to teach or fairly suggest delaying step (e) comprises buffering the first signal with a buffer transistor and adjusting current flow through the buffer transistor, thereby controlling delay of the rising edge of the first signal through the buffer transistor as called for in claim 32. Therefore, claims 32 and 35-38 are presently allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T. Lam whose telephone number is 571-272-1744. The examiner can normally be reached on Monday to Friday (7:30 am to 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TIMOTHY P. CALLAHAN can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tuan T. Lam
Primary Examiner
Art Unit 2816

2/22/2006